

**State of Utah****Department of  
Natural Resources**

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March 6, 2007

John A. Gefferth, Environmental Engineer  
Consolidation Coal Company  
P.O. Box 566  
Sesser, Illinois 62884

Subject: Deficiencies for 1st North Federal Lease Boundary Addition (160 acre - IBC), Task ID #2749, CONSOL Energy Company, Emery Deep Mine, C/015/0015, Outgoing File

Dear Mr. Gefferth:

The Division has reviewed your latest response (received February 13, 2007) to our January 17, 2007 review of your application to add the 160-acre Incidental Boundary Change (IBC) to the 1<sup>st</sup> North Federal Lease (U-50044).

The Division has determined that there are some remaining deficiencies that must be addressed before a determination can be made that the requirements of the R645 Coal Mining Rules have been met, and we can proceed toward approval of your application. Those deficiencies are listed as an attachment to this letter.

Each deficiency identifies its author by that author's initials in parentheses, so that your staff can directly communicate with that individual should any questions arise.

Please respond to these deficiencies as soon as possible, but no later than April 2, 2007, so that we may efficiently process your application.

Sincerely,

D. Wayne Hedberg  
Permit Supervisor

an  
Attachment  
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**Deficiency List**  
**Task No. 2749**  
**1<sup>st</sup> North Federal Lease Boundary Addition (160 Acre IBC)**  
**March 6, 2007**

The members of the review team include the following individuals:

Priscilla Burton [pwb]  
Wayne Western [whw]  
Steve Christensen [skc]  
Joe Helfrich [jch]

**R645-301-121.200**, The Permittee should address the language regarding Plate V-20 on page 5 in Chapter XIII. The bottom of page 5 of the submitted Chapter XIII states, "Based on data provided on Plate V-20 of the approved MRP, approximately 300 to 500 feet of overburden overlies the IJ zone within the IBC area". Upon inspection of the plates, Plate V-20 depicts the overburden of the UI zone. Plate V-19 depicts the J seam geology. The Permittee should provide clarification as the submitted information refers to the IJ zone/seams. Discuss or clarify the relative overburden thicknesses within the proposed IBC area for the UI zone and J zone. [skc]

**R645-301-525**, The Permittee should provide a more detailed and rigorous monitoring program to determine if subsidence has impacted the irrigation and stock watering network located within and adjacent to the IBC area. In light of the relatively small amount of overburden in the area (300-500 feet) and the projected subsidence depicted in these areas on Plate V-5, there is a potential for subsidence to impact these surface features. [skc]

**R645-301-525.130**, The Permittee must include in the subsidence survey information about the quality and quantity of State appropriated water in and around the 160-acre IBC. In the February 13, 2007 response the Permittee referred to Chapter VI, Volume 1 pages 139 thru 143 for a description of the approved water rights. The reference needs to be included in the subsidence section of the MRP. [whw]

**R645-301-624.300**, A lack of current acid/toxic information in Section III.C.5 of the application and section V.A.4 of the MRP should be addressed. John Gefferth acknowledged a lack of information and agreed to provide the information as soon as possible (email January 25, 2007), but such a commitment was not stated in the application. [pwb]

**R645-301-728**, The Permittee should discuss and provide further clarification that the PHC assessed potential impacts anticipated from implementing full extraction coal mining as opposed to room and pillar. It is not readily apparent to the reader that the PHC was produced relative to full extraction mining. Within the PHC section, the Permittee should provide (where applicable) explicit clarification, narrative and supporting evidence as to what the potential impacts from implementing full extraction mining and subsidence will have on ground and surface water resources in the proposed IBC area. For example, the second to last paragraph on page 8 of Chapter XIII states that the Ferron Sandstone discharges by "wells, by dewatering of the Emery Mine, by seepage into Quitcupah Creek and Christiansen Wash". Discussion of full extraction mining and potential subsidence related impacts on baseflow to the Christiansen Wash, Quitcupah Creek and

other surface water features (such as wetlands) would be one issue that should be further discussed relative to full extraction mining.

The PHC should also discuss the potential for the irrigation ditches and stock watering ponds located in and adjacent to the IBC to be impacted by full extraction. Plate V-5 depicts potentially 3 feet of subsidence in the areas of the irrigation ditches and stock watering ponds. Further discussion should be provided as to the potential for these hydraulic systems to be impacted. The explanations and discussion may be brief. However, the dots need to be connected (beyond inflows to the mine) within the PHC as to what impacts (if any) are anticipated to hydrologic resources as a result of full extraction mining in the proposed IBC area. In light of the coal seam thicknesses to be mined and the relatively small amount of overburden (300-500 feet), the potential exists for subsidence related impacts on surface and ground water resources in the area of the IBC and surrounding areas. [skc]

**R645-302-323.110**, The Permittee will correct the notation on Plate V-3 to indicate the point of diversion is NW of the IBC, not NE of the IBC. [pwb] -

**R645-301-411**, The introduction and description of the project area on page one of the inventory include a reference to *Consol Energy's three Emery Mine exploration parcels (Panel # 4 East, Panel #14 West, and Panel # 15 West)*. The text needs to be revised to correctly identify these as full extraction parcels. The survey needs to include a reference to a map in the MRP that clearly identifies each of the three referenced parcels, Panel # 4 East, Panel #14 West, and Panel # 15 West. [jch]

**R645-301-322**, The *Wildlife Habitat Map of The Federal Lease IBC Area* conflicts with plate 10-1 (Selected Wildlife Information) and should be deleted from Appendix XIII-2 or revised to match plate 10-1. As well the text in paragraph one on page six of the appendix and paragraph 2 on page 5 of the application need to be revised to include the wildlife species and their habitat types as depicted on plate 10-1. [jch]

**R645-301-323, 301-411, -301-521, -301-622, -301-722, -301-731**, All maps in the MRP that reflect the current permit boundary must be updated to include the proposed IBC. They were not included on the CD as stated by the applicant.

Plate VI-6A needs to be revised to eliminate those portions of the panels that extend beyond the permit boundary.

Plate V-5 needs to be revised to eliminate those portions of the projected subsidence areas that extend beyond the permit boundary.

Other inconsistencies with plate V-5 include:

- The delineation of full extraction as compared to plate X.A-1.

Plate X.A-1, Permit Area Cultural Resources needs to be updated to include the location and identification of the eight sites identified in the cultural resources inventory dated February 14, 2007.

Other inconsistencies with plate X.A-1 that need to be corrected include:

- The delineation of full extraction in a "Buffer Zone" under Christiansen Wash see chapter V page 27 paragraph two and plate V-5.
- The proposed IBC needs to be delineated as an area to be fully extracted [jch]

**R645-301-411.142, 143,144**; the applicant needs to address these sections of the regulations. Prior consideration should be given to an analysis of the Montgomery survey. [jch]

**R645-301-322, -301-333, -301-342, -301-358,**

- Threatened and Endangered plant species for Emery County are listed on page 4 of the application. No T&E plant species were found within the study area. As well the habitat assessment suggested almost no chance of species occurrence at the sites. The location of the study area needs to be included in the application.
- Chapter II, page 25a of the application includes criterion for estimating mine water consumption. Calculations and numbers and references need to be included with the criteria that are used in determining the mine water consumption value in acre-feet per year. According to the figures in table VI-23B page 169 the predicted discharge of 1.5 cfs would be approximately 1,086 acre feet per year versus the applicant's estimate of 456 acre-feet per year for current operations. The application needs to include projections for full extraction mining in the proposed IBC area.
- The application includes a reference to the results of the 2006 survey as Appendix D of the August 2006 exploration application. The application includes the results or data from the survey. However a map is also needed to identify the location of the nests and scope of the survey.

**R645-301-244, -301-353, -301-354, -301-355, -301-356, -302-280, -302-281, -302-282, -302-283, -302-284,** the application needs to include a time line for the implementation of phases 1,2 and 3 of the evaluation of final revegetation plans. [jch]

*The following information is provided for clarification of these sections of the regulations:*

**R645-301-322, -301-333, -301-342, -301-358,** Chapter V, page 41 includes a wetland mitigation plan for jurisdictional wetlands. The Division maintains that the plan could be broader in scope to also include areas of high value habitat for wildlife. At this time, the information in the application is considered adequate to meet the requirements of this section of the regulations. However, because the Division and the permittee maintain differing opinions on the level of detail specified under this section of the regulations, Division staff will continue to consult with the permittee and other appropriate representatives to evaluate the scope of the wetland delineation during the forthcoming wetland survey as outlined in the application. [jch]

**R645-301-411,** The permittee has combined this section of the regulations with the Vegetation Resource Information in chapter XIII appendix XIII-2 and section XIII.C.3 of the application. At this time, the information in the application is considered adequate to meet the requirements of this section of the regulations. However, the permittee maintains that wildlife habitat is not a land use in the proposed IBC area. It is the Division's opinion that wildlife habitat should be considered a land use in the proposed IBC area. Because the Division and the permittee maintain differing opinions regarding the level of detail specified under this section of the regulations, Division staff will continue consulting with the permittee to clarify the application and scope of these regulations. [jch]